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EXAMINER

WOO, ANDREW M

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/595,165	<b>Applicant(s)</b> DAVIDSSON, MARCUS	
	<b>Examiner</b> ANDREW WOO	<b>Art Unit</b> 2441	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-17,19-21 and 25-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-17,19-21 and 25-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. The application has been examined. Claims 1, 3-17, 19-21, and 25-29 are pending.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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**4. Claims 1, 3-17, 19-21, and 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hutta et al. (WO 01/91382, hereinafter Hutta) in view of Chotai (5,907,805).**

5. Regarding claim 1, **Hutta** discloses a method in a communication apparatus for maintaining an established connection between said communication apparatus and a network node of a serving communication network (*Hutta discloses that the selection of the support node may be made depending on the type of the connection established and/or requested, or on the type of the user equipment*) (**Hutta, page 10, lines 25-29**), comprising the steps of:

receiving an acceptance message from said network node in response to a request message relating to a first procedure transmitted to said network node (*Hutta discloses that the first network element may send a message of request containing the identifier (e.g. RAI) to another network element such as a DNS (Domain Name System) server in order to receive, as a response, a list of possible second network elements serving the routing area indicated by the RAI*) (**Hutta, page 5, lines 6-11**);

determining whether any request relating to a second procedure is pending (*Hutta discloses that the follow on request shall be set by the MS if there is pending uplink traffic (signaling or user data)*) (**Hutta, page 26, lines 17-18**); and,

transmitting to said network node, if any request is pending when said acceptance message is received, a maintaining request for maintaining said connection (*Hutta discloses that the first network element uses the area identifier and/or the CN identifier to request the list-transmitting network element such as a DNS server to send*

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*a list of second network elements assigned to the transmitted identifier)* (**Hutta**, page 6, lines 25-36; page 7, lines 1-5).

**Hutta** does not explicitly disclose wherein the step of transmitting said maintaining request is executed if the pending request is received after the request relating to the first procedure is transmitted and before said acceptance message is received.

In analogous art, **Chotai** teaches wherein the step of transmitting said maintaining request is executed if the pending request is received after the request relating to the first procedure is transmitted and before said acceptance message is received (***Chotai** discloses that the connection is released if is not utilised before the timer expires; at the end of a transaction such as a call, or a periodic location update, the signalling connection between the mobile unit and mobile switching centre is not released immediately; depending on the status of the flags, different actions are taken in the network; if the status of flags is zero, indicating that no new transaction are awaiting to use the existing connection, the connection is released by sending a Clear Command Message towards the Base Station System which in turn releases the radio connection to the mobile station; after the response from the base station system is received, the connection towards the base station system is released in the normal way; if the status of a flag indicates that there are other transactions which could make use of the connection, the existing signalling connection to the mobile station is not released; the connection is maintained for use by another transaction; a connection maintained protection may be started to supervise the maintenance of the connection until its new*

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*transaction starts utilising the maintained connection; if a new transaction is aborted without utilising the maintained signalling connection, the signalling connection is released after the expiry of the timer) (Chotai, col. 5, lines 39-64).*

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to take the teachings of **Chotai** related to maintaining a connection when there are transactions pending and to combine with **Hutta** in order to have a connection maintained for transactions that are still being processed and to check to see if the connection is still needed (*Chotai* discloses that the connection is released if is not utilised before the timer expires; at the end of a transaction such as a call, or a periodic location update, the signalling connection between the mobile unit and mobile switching centre is not released immediately; depending on the status of the flags, different actions are taken in the network; if the status of flags is zero, indicating that no new transaction are awaiting to use the existing connection, the connection is released by sending a Clear Command Message towards the Base Station System which in turn releases the radio connection to the mobile station; after the response from the base station system is received, the connection towards the base station system is released in the normal way; if the status of a flag indicates that there are other transactions which could make use of the connection, the existing signalling connection to the mobile station is not released; the connection is maintained for use by another transaction; a connection maintained protection may be started to supervise the maintenance of the connection until its new transaction starts utilising the maintained connection; if a new transaction is aborted without utilising the maintained signalling connection, the

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*signalling connection is released after the expiry of the timer)* (**Chotai, col. 5, lines 39-64**).

6. Regarding claim 3, **Hutta** and **Chotai** discloses the method according to claim 1, wherein the maintaining request is incorporated into a response message, which is transmitted in response to receiving said acceptance message (**Hutta discloses that the first network element may send a message of request containing the identifier (e.g. RAI) to another network element such as a DNS (Domain Name System) server in order to receive, as a response, a list of possible second network elements serving the routing area indicated by the RAI; and as a part of the response of the DNS, there is a transmitted a list of IP addresses and Canonical names (CNAME), as in fig. 5)** (**Hutta, page 5, lines 6-11; page 19, lines 1-5**).

7. Regarding claim 4, **Hutta** and **Chotai** discloses the method according to claim 3, wherein the response message is an acknowledgement message (**Hutta discloses that the RA update is an Inter-SGSN routing area update, the new SGSN sends an SGSN Context Acknowledge message to the old SGSN)** (**Hutta, page 28, lines 4-9**).

8. Regarding claim 5, **Hutta** and **Chotai** discloses the method according to claim 1, further comprising the step of maintaining said established connection until the connection is no longer in use (**Hutta discloses that the routing area has to be**

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*completely shut-down and is at least temporarily no longer usable for providing connections)* (**Hutta, page 2, lines 20-26**).

9. Regarding claim 6, **Hutta** and **Chotai** discloses the method according to claim 1, wherein the established connection is a packet switched or a circuit switched signaling connection (***Hutta** discloses that the network can be of circuit-switched or packet-switched*) (**Hutta, page 1, lines 3-10**).

10. Regarding claim 7, **Hutta** and **Chotai** discloses the method according to claim 1, wherein the method is comprised in a mobility management protocol of a wireless communication interface of the electronic communication apparatus, and wherein a mobility management unit handles the signaling to the network node (***Hutta** discloses that to ensure backward compatibility, the new information element is optional information element transmitted in both MM and RRC signaling (if an explicit information element is used for both protocols)*) (**Hutta, page 16, lines 20-32**).

11. Regarding claim 8, **Hutta** and **Chotai** discloses the method according to claim 1, wherein the first and second procedures are mobility management procedures (***Hutta** discloses that the selection of one of the available second network elements covering a certain routing area may be performed in dependence on information coming from other network element such as user equipment, for instance a mobile station*) (**Hutta, page 7, lines 26-36; page 8, lines 1-5**).



12. Regarding claim 9, **Hutta** and **Chotai** discloses the method according to claim 1, wherein the maintaining request is a Follow-On Request (FOR) (*Hutta discloses that the RRC connection is established, if not done already; the MS sends a routing area update request message (i.e. follow-on-request, etc.); and the follow on request shall be set by the MS if there is pending uplink traffic (signaling or user data)*) (**Hutta, page 26, lines 12-20**).

13. Regarding claim 10, **Hutta** discloses a method in a communication network node for maintaining a signal connection between said network node and a communication apparatus being served (*Hutta discloses that the selection of the support node may be made depending on the type of the connection established and/or requested, or on the type of the user equipment*) (**Hutta, page 10, lines 25-29**), comprising the steps of:

establishing said signal connection (*Hutta discloses that the connection can be established to a node; the selection of the support node may be made depending on the type of the connection established and/or requested, or on the type of the user equipment*) (**Hutta, page 7, lines 26-36; page 8, lines 1-5; page 10, lines 25-29**);

transmitting to said communication apparatus an acceptance message in response to receiving from said communication apparatus a request relating to a first procedures (*Hutta discloses that the first network element may send a message of request containing the identifier (e.g. RAI) to another network element such as a DNS (Domain Name System) server in order to receive, as a response, a list of possible*

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*second network elements serving the routing area indicated by the RAI; and the first network element uses the area identifier and/or the CN identifier to request the list-transmitting network element such as a DNS server to send a list of second network elements assigned to the transmitted identifier)* (**Hutta**, page 5, lines 6-11; page 6, lines 25-36; page 7, lines 1-5);

maintaining the signal connection for a predetermined period of time after the acceptance message is transmitted (**Hutta** discloses that when a SGSN is scheduled for operation and maintenance procedures, it will preferably be excluded from the list sent back in response a certain or determined time interval such as several hours before the scheduled maintenance time point so as to avoid connections to be newly established to this SGSN) (**Hutta**, page 23, lines 19-34); and,

further maintaining the connection if a maintaining request is received from said communication apparatus within said predetermined period of time (**Hutta** discloses that when a SGSN is scheduled for operation and maintenance procedures, it will preferably be excluded from the list sent back in response a certain or determined time interval such as several hours before the scheduled maintenance time point so as to avoid connections to be newly established to this SGSN) (**Hutta**, page 23, lines 19-34).

**Hutta** does not explicitly disclose maintaining request associated with a second procedure initiated after said request relating to said first procedure was transmitted.

In analogous art, **Chotai** teaches maintaining request associated with a second procedure initiated after said request relating to said first procedure was transmitted (**Chotai** discloses that the connection is released if is not utilised before the timer

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*expires; at the end of a transaction such as a call, or a periodic location update, the signalling connection between the mobile unit and mobile switching centre is not released immediately; depending on the status of the flags, different actions are taken in the network; if the status of flags is zero, indicating that no new transaction are awaiting to use the existing connection, the connection is released by sending a Clear Command Message towards the Base Station System which in turn releases the radio connection to the mobile station; after the response from the base station system is received, the connection towards the base station system is released in the normal way; if the status of a flag indicates that there are other transactions which could make use of the connection, the existing signalling connection to the mobile station is not released; the connection is maintained for use by another transaction; a connection maintained protection may be started to supervise the maintenance of the connection until its new transaction starts utilising the maintained connection; if a new transaction is aborted without utilising the maintained signalling connection, the signalling connection is released after the expiry of the timer) (**Chotai**, col. 5, lines 39-64).*

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to take the teachings of **Chotai** related to maintaining a connection when there are transactions pending and to combine with **Hutta** in order to have a connection maintained for transactions that are still being processed and to check to see if the connection is still needed (**Chotai** discloses that the connection is released if is not utilised before the timer expires; at the end of a transaction such as a call, or a periodic location update, the signalling connection between the mobile unit and mobile

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*switching centre is not released immediately; depending on the status of the flags, different actions are taken in the network; if the status of flags is zero, indicating that no new transaction are awaiting to use the existing connection, the connection is released by sending a Clear Command Message towards the Base Station System which in turn releases the radio connection to the mobile station; after the response from the base station system is received, the connection towards the base station system is released in the normal way; if the status of a flag indicates that there are other transactions which could make use of the connection, the existing signalling connection to the mobile station is not released; the connection is maintained for use by another transaction; a connection maintained protection may be started to supervise the maintenance of the connection until its new transaction starts utilising the maintained connection; if a new transaction is aborted without utilising the maintained signalling connection, the signalling connection is released after the expiry of the timer) (Chotai, col. 5, lines 39-64).*

14. Regarding claim 11, **Hutta** and **Chotai** discloses the method according to claim 10, further comprising the steps of:

receiving the maintaining request, and in response thereto maintaining the established connection until the connection is no longer in use (*Hutta discloses that the routing area has to be completely shut-down and is at least temporarily no longer usable for providing connections*) (**Hutta, page 2, lines 20-26**).

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15. Regarding claim 12, **Hutta** and **Chotai** discloses the method according to claim 10, wherein the acceptance message comprises information requiring an acknowledgement message, the method further comprises the step of receiving the acknowledgement message, and determining whether said acknowledgement message comprises the maintaining request (*Hutta discloses that the first network element may send a message of request containing the identifier (e.g. RAI) to another network element such as a DNS (Domain Name System) server in order to receive, as a response, a list of possible second network elements serving the routing area indicated by the RAI; and as a part of the response of the DNS, there is a transmitted a list of IP addresses and Canonical names (CNAME), as in fig. 5; and the RA update is an Inter-SGSN routing area update, the new SGSN sends an SGSN Context Acknowledge message to the old SGSN*) (**Hutta, page 5, lines 6-11; page 19, lines; page 28, lines 4-9**).

16. Regarding claim 13, **Hutta** and **Chotai** discloses the method according to claim 10, wherein the established connection is a packet switched or a circuit switched signaling connection (*Hutta discloses that the network can be of circuit-switched or packet-switched*) (**Hutta, page 1, lines 3-10**).

17. Regarding claim 14, **Hutta** and **Chotai** discloses the method according to claim 10, wherein the method is comprised in a mobility management protocol of a wireless interface of the communication network, and wherein a mobility management unit

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handles the signaling to the communication apparatus (**Hutta** discloses that to ensure backward compatibility, the new information element is optional information element transmitted in both MM and RRC signaling (if an explicit information element is used for both protocols)) (**Hutta, page 16, lines 20-32**).

18. Regarding claim 15, **Hutta** and **Chotai** discloses the method according to claim 10, wherein the specific procedure is a mobility management procedure (**Hutta** discloses that the selection of one of the available second network elements covering a certain routing area may be performed in dependence on information coming from other network element such as user equipment, for instance a mobile station) (**Hutta, page 7, lines 26-36; page 8, lines 1-5**).

19. Regarding claim 16, **Hutta** and **Chotai** discloses the method according to claim 10, wherein the maintaining request is a Follow-On Request (FOR) (**Hutta** discloses that the RRC connection is established, if not done already; the MS sends a routing area update request message (i.e. follow-on-request, etc.); and the follow on request shall be set by the MS if there is pending uplink traffic (signaling or user data)) (**Hutta, page 26, lines 12-20**).

20. Regarding claim 17, **Hutta** discloses a control device for a communication apparatus for maintaining an established connection to a communication network, the control device being adapted to issue a request to maintain said connection (**Hutta**

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*discloses that the network element can be of a user equipment*) (**Hutta, page 4, lines 18-28**), comprising:

receiver means arranged to receive an acceptance message in response to transmitting a request relating to a first procedure (***Hutta** discloses that the first network element may send a message of request containing the identifier (e.g. RAI) to another network element such as a DNS (Domain Name System) server in order to receive, as a response, a list of possible second network elements serving the routing area indicated by the RAI*) (**Hutta, page 5, lines 6-11**); and,

issuing means arranged to issue, if any request relating to a second procedure is pending when said acceptance message is received, a maintaining request for maintaining said connection (***Hutta** discloses that the first network element uses the area identifier and/or the CN identifier to request the list-transmitting network element such as a DNS server to send a list of second network elements assigned to the transmitted identifier; and the follow on request shall be set by the MS if there is pending uplink traffic (signaling or user data)*) (**Hutta, page 6, lines 25-36; page 7, lines 1-5; page 26, lines 17-18**).

**Hutta** does not explicitly disclose wherein said issuing means is arranged to issue said maintaining request if the pending request is received after the request relating to the first procedure is transmitted and before said acceptance message is received.

In analogous art, **Chotai** teaches wherein said issuing means is arranged to issue said maintaining request if the pending request is received after the request

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relating to the first procedure is transmitted and before said acceptance message is received (**Chotai** discloses that the connection is released if is not utilised before the timer expires; at the end of a transaction such as a call, or a periodic location update, the signalling connection between the mobile unit and mobile switching centre is not released immediately; depending on the status of the flags, different actions are taken in the network; if the status of flags is zero, indicating that no new transaction are awaiting to use the existing connection, the connection is released by sending a Clear Command Message towards the Base Station System which in turn releases the radio connection to the mobile station; after the response from the base station system is received, the connection towards the base station system is released in the normal way; if the status of a flag indicates that there are other transactions which could make use of the connection, the existing signalling connection to the mobile station is not released; the connection is maintained for use by another transaction; a connection maintained protection may be started to supervise the maintenance of the connection until its new transaction starts utilising the maintained connection; if a new transaction is aborted without utilising the maintained signalling connection, the signalling connection is released after the expiry of the timer) (**Chotai, col. 5, lines 39-64**).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to take the teachings of **Chotai** related to maintaining a connection when there are transactions pending and to combine with **Hutta** in order to have a connection maintained for transactions that are still being processed and to check to see if the connection is still needed (**Chotai** discloses that the connection is released if



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*is not utilised before the timer expires; at the end of a transaction such as a call, or a periodic location update, the signalling connection between the mobile unit and mobile switching centre is not released immediately; depending on the status of the flags, different actions are taken in the network; if the status of flags is zero, indicating that no new transaction are awaiting to use the existing connection, the connection is released by sending a Clear Command Message towards the Base Station System which in turn releases the radio connection to the mobile station; after the response from the base station system is received, the connection towards the base station system is released in the normal way; if the status of a flag indicates that there are other transactions which could make use of the connection, the existing signalling connection to the mobile station is not released; the connection is maintained for use by another transaction; a connection maintained protection may be started to supervise the maintenance of the connection until its new transaction starts utilising the maintained connection; if a new transaction is aborted without utilising the maintained signalling connection, the signalling connection is released after the expiry of the timer) (Chotai, col. 5, lines 39-64).*

21. Regarding claim 19, **Hutta** and **Chotai** discloses the control device according to claim 17, wherein said issuing means is arranged to incorporate the maintaining request into a response message, and arranged to issue said response message in response to receiving said acceptance message (**Hutta** discloses that the first network element may send a message of request containing the identifier (e.g. RAI) to another network

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*element such as a DNS (Domain Name System) server in order to receive, as a response, a list of possible second network elements serving the routing area indicated by the RAI; and as a part of the response of the DNS, there is a transmitted a list of IP addresses and Canonical names (CNAME), as in fig. 5) (Hutta, page 5, lines 6-11; page 19, lines 1-5).*

22. Regarding claim 20, **Hutta** and **Chotai** discloses the control device according to claim 19, wherein the response message is an acknowledgement message (*Hutta discloses that the RA update is an Inter-SGSN routing area update, the new SGSN sends an SGSN Context Acknowledge message to the old SGSN*) (**Hutta, page 28, lines 4-9**).

23. Regarding claim 21, **Hutta** and **Chotai** discloses the control device according to claim 17, comprising a memory for storing a mobility management protocol of a wireless communication interface, according to which the requests are transmitted, and the acceptance message is received (*Hutta discloses that to ensure backward compatibility, the new information element is optional information element transmitted in both MM and RRC signaling (if an explicit information element is used for both protocols); and having retrieved the available SGSNs from the memory*) (**Hutta, page 16, lines 20-32; page 23, lines 19-34**).

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24. Regarding claim 25, **Hutta** discloses a control device for a network node for maintaining a signal connection to a communication apparatus, the control device being adapted to issue an acceptance message in response to a request relating to a first procedure (*Hutta discloses that the network element can be of a user equipment; and the first network element uses the area identifier and/or the CN identifier to request the list-transmitting network element such as a DNS server to send a list of second network elements assigned to the transmitted identifier; and the follow on request shall be set by the MS if there is pending uplink traffic (signaling or user data)*) (**Hutta, page 4, lines 18-28; page 6, lines 25-36; page 7, lines 1-5; page 26, lines 17-18**), the control device comprising:

an issuing means arranged to issue the acceptance message in response to receiving the request from the communication apparatus (*Hutta discloses that the first network element uses the area identifier and/or the CN identifier to request the list-transmitting network element such as a DNS server to send a list of second network elements assigned to the transmitted identifier; and the follow on request shall be set by the MS if there is pending uplink traffic (signaling or user data)*) (**Hutta, page 6, lines 25-36; page 7, lines 1-5; page 26, lines 17-18**);

a waiting means arranged to maintain the signal connection for a predetermined period of time after the acceptance message is transmitted to the communication apparatus (*Hutta discloses that the address of the first network element sending the list request or indicating first a default second element for this area; based on information on the actual or previous load of each listed second network element; and the order of*

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*listing of the second network elements may be kept unchanged, but additional information is attached to the list indicating the actual or previous load condition of the listed second network elements; and the routing area update takes place when an attached MS detects that it has entered a new RA or when the periodic RA update timer has expires)* (**Hutta**, page 5, lines 16-36; page 6, lines 1-5; page 25, lines 17-18);

wherein the waiting means is arranged to further wait if a maintaining request is received from the communication apparatus within said predetermined period of time (**Hutta** discloses that it may determine the old second network element; and the identifier may have been sent from the old support node to the user equipment together with PTMSI during (e.g. at the begin or end) of the time period during which it was charge for handling the connection to the user equipment) (**Hutta**, page 10, lines 1-16).

**Hutta** does not explicitly disclose maintaining request associated with a second procedure initiated after said request relating to said first procedure was transmitted.

In analogous art, **Chotai** teaches maintaining request associated with a second procedure initiated after said request relating to said first procedure was transmitted (**Chotai** discloses that the connection is released if is not utilised before the timer expires; at the end of a transaction such as a call, or a periodic location update, the signalling connection between the mobile unit and mobile switching centre is not released immediately; depending on the status of the flags, different actions are taken in the network; if the status of flags is zero, indicating that no new transaction are awaiting to use the existing connection, the connection is released by sending a Clear Command

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*Message towards the Base Station System which in turn releases the radio connection to the mobile station; after the response from the base station system is received, the connection towards the base station system is released in the normal way; if the status of a flag indicates that there are other transactions which could make use of the connection, the existing signalling connection to the mobile station is not released; the connection is maintained for use by another transaction; a connection maintained protection may be started to supervise the maintenance of the connection until its new transaction starts utilising the maintained connection; if a new transaction is aborted without utilising the maintained signalling connection, the signalling connection is released after the expiry of the timer) (**Chotai**, col. 5, lines 39-64).*

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to take the teachings of **Chotai** related to maintaining a connection when there are transactions pending and to combine with **Hutta** in order to have a connection maintained for transactions that are still being processed and to check to see if the connection is still needed (***Chotai** discloses that the connection is released if is not utilised before the timer expires; at the end of a transaction such as a call, or a periodic location update, the signalling connection between the mobile unit and mobile switching centre is not released immediately; depending on the status of the flags, different actions are taken in the network; if the status of flags is zero, indicating that no new transaction are awaiting to use the existing connection, the connection is released by sending a Clear Command Message towards the Base Station System which in turn releases the radio connection to the mobile station; after the response from the base*

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*station system is received, the connection towards the base station system is released in the normal way; if the status of a flag indicates that there are other transactions which could make use of the connection, the existing signalling connection to the mobile station is not released; the connection is maintained for use by another transaction; a connection maintained protection may be started to supervise the maintenance of the connection until its new transaction starts utilising the maintained connection; if a new transaction is aborted without utilising the maintained signalling connection, the signalling connection is released after the expiry of the timer)* (**Chotai, col. 5, lines 39-64**).

25. Regarding claim 26, **Hutta** and **Chotai** discloses the control device according to claim 25, wherein said waiting is arranged to wait until the second period of time ends, which is when the connection is no longer in use (**Hutta discloses that when a SGSN is scheduled for operation and maintenance procedures, it will preferably be excluded from the list sent back in response a certain or determined time interval such as several hours before the scheduled maintenance time point so as to avoid connections to be newly established to this SGSN**) (**Hutta, page 23, lines 19-34**).

26. Regarding claim 27, **Hutta** and **Chotai** discloses the control device according to claim 25, wherein said issuing means is arranged to incorporate into the acceptance message information that requires an acknowledgement message (**Hutta discloses that the first network element may send a message of request containing the identifier (e.g.**

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*RAI) to another network element such as a DNS (Domain Name System) server in order to receive, as a response, a list of possible second network elements serving the routing area indicated by the RAI; and as a part of the response of the DNS, there is a transmitted a list of IP addresses and Canonical names (CNAME), as in fig. 5) (Hutta, page 5, lines 6-11; page 19, lines 1-5).*

27. Regarding claim 28, **Hutta** and **Chotai** discloses the control device according to claim 25, wherein said waiting means is arranged to determine whether a received response message comprises a request to maintain the connection, and if so maintain said connection (**Hutta** discloses that the selection of the support node may be made depending on the type of the connection established and/or requested, or on the type of the user equipment; and when a SGSN is scheduled for operation and maintenance procedures, it will preferably by excluded from the list sent back in response a certain or determined time interval such as several hours before the scheduled maintenance time point so as to avoid connections to be newly established to this SGSN) (**Hutta**, page 10, lines 25-29; page 23, lines 19-34).

28. Regarding claim 29, **Hutta** and **Chotai** discloses the control device according to claim 25, comprising a memory for storing a mobility management protocol of a wireless communication interface, according to which the requests and messages are processed (**Hutta** discloses that to ensure backward compatibility, the new information element is optional information element transmitted in both MM and RRC signaling (if an explicit

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*information element is used for both protocols); and having retrieved the available SGSNs from the memory) (Hutta, page 16, lines 20-32; page 23, lines 19-34).*

### ***Response to Arguments***

29. Applicant's arguments with respect to claims 1, 3-17, 19-21, and 25-29 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW WOO whose telephone number is (571)270-7521. The examiner can normally be reached on Monday - Friday, 8am-5:30pm, alternating Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on (571)272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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/A. W./

Examiner, Art Unit 2441

02/22/2010

/Wing F. Chan/

Supervisory Patent Examiner, Art Unit 2441